

# PHYSICIAN INITIATIVE

## EXECUTIVE SUMMARY OF RECOMMENDATIONS:

A team was formed to make recommendations to the Board of Regents regarding solutions to the state's physician shortage and mal-distribution problems. This team consisted of representatives from the Office of the Commissioner, the University of Washington School of Medicine, MSU (WWAMI), the Montana Family Medicine Residency Program, the Primary Care Liaison group (which includes representatives from PCA, PCO, MHA, MMA, MAFP), and the Governor's Office.

It should be noted that the Governor's Office, while participating fully in the discussion, will not endorse any recommendations until they have been evaluated through the on-going Executive Planning Process. The remainder of the working group unanimously makes the following three recommendations for increasing the number of physicians serving Montana's rural communities:

1. Expand Montana's participation in the existing WWAMI program (UW medical school) by 20 positions per year and modify admissions criteria to train more students likely to ultimately practice in Montana's rural areas.
2. Improve and consolidate physician location incentives that encourage more primary care physicians to practice in Montana's Health Professional Shortage Areas.
3. Begin the lengthy process of evaluating expansion of the number and type of residency programs in the state.

## BACKGROUND

The idea that Montana should create its own medical school has, over the past several decades, periodically surfaced as a topic of interest among our policy leaders. The issue was again seriously discussed during the 59<sup>th</sup> legislative session in 2005, although no action regarding the establishment of a medical school was approved. Following the legislative session, the Board of Regents recognized that this issue was likely to resurface and asked its staff to evaluate whether significant resources should be allocated to the further study of whether or not Montana should create a new medical school.

The staff recommendation to the Board or Regents was to not devote significant resources to planning a new medical school. This recommendation was accepted by the Board in July 2005. The basis for this decision was that there is strong evidence other alternatives would be more effective, potentially less costly, and help us more quickly than a new medical school.

A medical school, even of creative design, will cost tens of millions of dollars in up-front capital and at least \$8-10 million in annual operating support from the

State. As an example, the Florida State School of Medicine (the most recent medical school created in the U.S.) cost the State of Florida \$155 million just to the point in time it graduated its first 30 students. Even a fraction of this cost represents an enormous investment that could be put to use in better, quicker ways to address the state's physician shortages and mal-distribution problems. The Board of Regents agreed that a new medical school should be seriously evaluated only if more cost-effective alternatives are implemented and significant problems persist. As a more efficient alternative to expending resources for planning a new medical school, the Regents directed a study to evaluate other, more plausible, alternatives to increase the number of physicians in Montana's rural areas.

### **RECOMMENDATION 1: INCREASE THE NUMBER OF WWAMI SLOTS FROM THE CURRENT 20 PER YEAR TO 40 PER YEAR AND MODIFY SELECTION CRITERIA.**

#### **History:**

Montana has participated in the WWAMI program through the University of Washington (UW) since 1975. This program has afforded Montana students the opportunity to attend medical school "in-state" through a combination of instruction at MSU-Bozeman, UW, and clinical sites throughout the western region.

The number of WWAMI slots has remained constant (20) for the past 30 years while the population of the state and the undergraduate population has increased about 30%. This has significantly reduced access to a publicly sponsored medical education for our students -- from one per 24,246 citizens to one per 35,648 citizens -- which is well below the national average. We also have a significant number of qualified applicants from Montana who are currently turned-away from the WWAMI medical school. The WWAMI program, over the past six years, has accepted only about 1 in 3 qualified applicants (about 67 qualified applicants for 20 annual slots), which clearly indicates excess demand for the program and gives us confidence that any reasonable program expansion will still be oversubscribed.

#### **Current Situation:**

UW is now in the process of expanding its medical school to accommodate more WWAMI students from all participating states. This presents a one-time opportunity to expand Montana's number of slots in the program. UW understands that an expansion of WWAMI in Montana will require legislative action and will wait until our Legislature has the opportunity to consider the issue. After the 60<sup>th</sup> Legislature has adjourned, however, our opportunity to expand the number of slots will have passed. It will probably be decades into the future, if ever, before another opportunity to significantly expand our participation is again available. Alaska, Wyoming, and Idaho are all seriously considering significant

expansion for their own students. Any expansion of the Montana program will require negotiations with UW, but it may be possible to add up to 20 additional slots (doubling the program in the state). Since the infrastructure is largely in place to manage the existing WWAMI program, expanding the number of WWAMI slots for Montana students requires only the funding for the slots and modest additional administrative costs.

At the same time, the existing WWAMI program in Montana is in the process of adding a 3<sup>rd</sup> year medical school track in Montana and altering the admissions process to give more consideration to applicants that are most likely to return to the state's rural areas to practice. With the addition of a 3<sup>rd</sup> year program in Montana, our WWAMI students can complete almost 75% of their medical education in the state (some clinical rotations in the 4<sup>th</sup> year are already conducted here). The combined effect of these changes is to increase the number of Montana's WWAMI-trained physicians who will serve our rural population. These changes are being implemented regardless of whether the WWAMI program is expanded, but they mean an expansion will have an even greater impact on providing increased healthcare access for our citizens.

**Recommendation:**

Montana should take full advantage of the opportunity to expand its WWAMI participation and increase the number of positions from 20 per year to 40 per year.

**Benefits of Recommendation:**

The WWAMI program serves two important roles for Montana. First, it provides access to professional training and education for students who wish to become medical doctors. This fulfills the core mission of higher education to provide a quality postsecondary education for our citizens. Without the WWAMI program, Montana students are at a significant disadvantage to students in other states – almost all of whom have access to a state public medical school(s). We measure success in this area by the increased educational opportunity and the increased number of students participating in the program.

Second, WWAMI provides a conduit for Montana students to train in medicine and remain connected to the state. There is a strong correlation between where a student is trained and where he/she ultimately practices. Particularly with the changes to the Montana WWAMI program already underway, expanding the WWAMI programs will increase the number of physicians who ultimately chose to return to Montana and practice in our rural areas. Montana currently has 29 counties that are at least in part designated a Health Professional Shortage Area – meaning they have a shortage of primary care physicians within a reasonable distance. As is true for all education and training programs, there is never a guarantee that a particular student will ultimately work in the state. However, the strong correlation between where a physician spends his/her youth, where they are trained, and where they ultimately chose to practice means expanding the

WWAMI program is one important way to expand the number of physicians serving the state.

Expanding our participation with WWAMI also strengthens our relationship with the UW School of Medicine, which is currently the top-ranked primary care medical school in the country. Montana has greatly benefited, in both physician training and rural healthcare research and support, from our relationship with UW. Expanding the WWAMI program will help us grow this relationship. Since this opportunity to expand the WWAMI program will not present itself for many years, this is our opportunity to plan for Montana's healthcare needs for many decades into the future.

Much data on the success of the WWAMI program is available, but some highlights are:

- About 40% of WWAMI's Montana graduates return to Montana (above average);
- About 50% of WWAMI's total graduates practice in Montana (so participation in the program is an effective recruiting tool);
- The WWAMI affiliated Family Practice Residency Program in Billings has a 60% retention rate (25% above the national average);

Expanding our current WWAMI program would effectively give Montana a 160 student medical school without the enormous capital costs of creating a new medical school. Our students would be able to study three of their four years of medical education within Montana and still graduate from one of the top medical schools in the country. (No new medical school could expect to have anything close to the reputation and quality of UW for many decades.) The impact of the WWAMI program is also diffuse, with education and clinical sites throughout the state. This has the distinct advantage of avoiding the inevitably large increase in the number of physicians and other infrastructure that a new medical school would require in a host community.

#### **COST:**

*The cost for a 4 year medical education in WWAMI per student is about \$170,000. The cost differs significantly over the four years, especially since the first year is conducted at MSU. The number of slots is the number of new positions per year. However, since medical school is a four year course of study, the costs ramp up (25%, 50%, 75%, 100%) for four years and at different rates per year. At and beyond four years we have a steady state. E.g. if we add one slot we have one freshman added in year one, but in year two we have a new freshman and last year's freshman (now a sophomore medical student), etc. The steady state cost of adding WWAMI slots is \$170,000 per slot, reached after four years. Costs in the first biennium are \$1.9 million and reflect the costs of two years of freshman classes at MSU and one year of a sophomore class at UW. A better reflection of the cost commitment, however, is to figure that every slot costs \$170,000 per year once steady state is reached and each class freshman-senior is*

*increased. At this level, the cost of 20 slots is approximately \$3.4 million per year in 2005 dollars.*

## **RECOMMENDATION 2: IMPROVE AND CONSOLIDATE PHYSICIAN LOCATION INCENTIVES THAT ENCOURAGE MORE PRIMARY CARE PHYSICIANS TO PRACTICE IN MONTANA'S HEALTH PROFESSIONAL SHORTAGE AREAS.**

### **History:**

Medical student debt has increased more than 170% during the past 20 years. The national average medical student debt at graduation is now more than \$110,000. Montana's WWAMI graduates average only slightly less debt of about \$94,000. This heavy financial burden often drives physicians into specialties and locations that can provide higher compensation. Clearly this disadvantages rural areas where salaries tend to be lower and the need for primary care physicians is higher. The lack of amenities and difficulties of practicing in relative isolation also make some rural areas less attractive for many physicians. Without some additional incentives, it is unlikely that certain rural areas will be able attract needed primary care physicians.

Throughout the US there are about 70 different state programs and a number of federal programs aim to increase the number of primary care physicians who locate in rural, high-need areas by offering incentives in some form of debt repayment/financial assistance in exchange for an agreement to locate in underserved areas. While the construct of these programs varies, on balance they are successful in attracting physicians to locations where they would not likely locate without some additional compensation. Programs targeting post-graduation incentives seem to be more effective nationally than scholarship programs, probably due to a greater reluctance to commit to a practice area in the earliest stages of medical training.

### **Current Situation:**

Montana does have two such incentive programs -- The Montana Rural Physician Incentive Program (MRPIP) and the Rural Physicians Tax Credit. The MRPIP was established in 1991 and currently offers up to \$45,000 in debt repayment for physicians locating in rural Montana areas for at least five years. The program has been successful, albeit small, with a retention rate of 85% (physicians remaining in the area beyond five years). Since 1993 the program has approved 75 applications, or about 5-6 per year. The program is "self-funded" through a surcharge on medical students participating in the WWAMI and WICHE programs and generates about \$200,000 per year.

The Rural Physicians Credit is available to any physician who commences practice in an area without a 60 bed hospital within a 30-mile radius. The credit allows up to a \$5,000 deduction against state tax liability for up to four years (cumulative \$20,000 maximum value). About 90 physicians apply for this credit

annually with a yearly aggregate value of about \$300,000. Unfortunately, this program is not well publicized and it is inflexible. Physicians practicing in a qualifying area get the credit whether the location is truly a shortage area or not and there is no opportunity to adjust the incentive over time to reflect changing need. Conversations with a number of physicians indicate most made location decisions irrespective of the program and simply apply for the credit once they discover they are eligible.

With increasing debt-loads, and some other western states offering debt forgiveness of \$100,000 or more in similar programs, Montana's programs are limited and marginally effective. While all other state's programs have differing criteria that make a precise comparison difficult, a typical state program in the U.S. offers incentives of about \$20,000 per year for four years – about double Montana's MRPIP. State's targeting particularly challenging areas offer considerably more. The federal Indian Health Services program, for example, offers incentives worth well over \$50,000 per year to encourage physicians to locate in rural reservation communities. Montana and Idaho are the only states that use only student fees to fund a physician location incentive program.

There are currently several options to increase the amount of funds available for a physician location incentive program, without requesting significant state general fund dollars. Montana currently charges a "graduate student" rate for its first year medical school class at MSU of about \$8,000. All other WWAMI states charge a first year "medical student" rate of about \$15,000. Increasing Montana's first year rate to this level would generate an additional (approximately) \$140,000 per year. If the class size is doubled to 40, this would generate approximately \$280,000 in extra funds. While a portion of this additional revenue should be used to support the WWAMI program itself, a significant portion could be used for an incentive program.

An additional source of revenue could be from instituting at least a partial pay-back of the state WWAMI subsidy for students not returning to practice in Montana. The committee does not recommend this approach for several reasons. First, the great danger of a large pay-back requirement is that it creates a powerful incentive for students who can gain admittance to other medical schools to not participate in WWAMI. This effectively diverts our best students out of the WWAMI program. Wyoming, for instance, now requires a nearly \$150,000 payback for students not returning to the state, which we expect to have a significant, deleterious effect on their applicant pool over time. Second, pay-back programs are difficult to administer and enforce. Finally, a pay-back program that only requires a physician to return to anywhere-in-the-state will likely do nothing to solve our mal-distribution problems. To try and craft a pay-back program that could, 7-8 years in advance, direct new physicians to specific shortage areas would be enormously complicated.

The study team feels strongly that any pay-back program should be limited to an amount that will neither substantially influence a decision to participate, or not, in WWAMI nor position WWAMI as a medical school of last resort. Then, if the pay-back is moderate enough to meet this objective, there is no reason not to charge the additional amount up-front and avoid the complexity of enforcement or collection post-medical school. Properly constructed, this recommendation could raise a significant amount of funding for a physician location incentive program. Students who ultimately chose to return to shortage areas in Montana would eventually receive multiples of their cumulative surcharge payments. Students who complete their education and elect to practice in non-shortage areas, or out-of-state, are free to do so without further penalty. The WWAMI surcharge that currently funds the MRPIP is \$2,000 per student per year. This team recommends the surcharge be increased to \$4,000 per student, generating an additional \$160,000 per year (\$320,000 if WWAMI is doubled). This additional surcharge still prices a WWAMI medical education well below almost all alternatives for our medical-school-bound students.

**Recommendation:**

Montana should consolidate its two principal incentive programs and increase the amount of available funds with the following actions:

- Charge higher rates (on par with all other WWAMI states) for first year WWAMI students and put funds into Montana Rural Physician Incentive Program (MRPIP) and WWAMI program.
- Consider phasing-out the current Rural Physician Tax Incentive (grandfather current enrollees for time left under current law), and put equivalent funds into MRPIP.
- Increase “surcharge” for WWAMI program from \$2K to \$4-5K per year, put additional funds into MRPIP.
- Revise the MRPIP to increase incentive amounts and to better target locations in most need of primary care physician with a goal to eliminate all Health Professional Shortage Areas (HPSAs) in 10 years.
- Include a larger selection team (than the current MRPIP committee) for awards to have greater rural representation and to ensure adequate incentives are targeted at highest-need areas.
- Consider expanding the MRPIP to include nurses and other health professionals for which there are critical shortages in certain rural areas.

**Benefits of Recommendation:**

By consolidating and expanding Montana’s two principal incentive programs the state would have one, more powerful tool to encourage physicians to locate in our highest-need areas. Implementing the above recommendations would provide approximately \$1 million per year for MRPIP. This new consolidated

program could be marketed more effectively and more carefully targeted to priority communities. It could be adjusted easily and frequently based on effectiveness and state need. It would also be cost effective. Even one million dollars of funding would expand our successful existing incentive program five-fold. This incentive program would also have an almost immediate effect. We would be able to begin solving rural health shortages almost immediately in carefully targeted ways while other longer-term solutions such as WWAMI expansion and new residency programs are implemented.

**COST:**

*While implementation of these recommendations will require certain actions by the Board of Regents and the Legislature it should have no effect on the state's general fund or tuition (beyond the additional surcharges paid by WWAMI students).*

**RECOMMENDATION 3: BEGIN THE LENGTHY PROCESS OF EVALUATING EXPANSION OF THE NUMBER AND TYPE OF RESIDENCY PROGRAMS IN THE STATE.**

**History:**

Physician training is a long process and only begins with medical school. Graduate Medical Education (GME) is that level of physician education which occurs after medical school and prepares the physician to practice a medical specialty. Most physicians will spend between 3 and 8 years in GME after medical school. Since GME is typically the last step in training, and involves significant interactions with a region's practicing medical community, it is logical that the location of this training would influence a physician's choice of a practice location. In fact, the location of a residency program is significantly more predictive of ultimate location for a physician than is medical school location. Nationally about half of all physicians locate in the state of their most recent GME (47% vs. 39% from medical school).

Expanding residency programs also gives a state considerable influence over the types of physicians it needs to attract. All medical schools have graduates who will chose specialties or sub-specialties. Residency programs can be created or expanded for the types of specialties that are most needed in current or anticipated shortage areas (generally primary care) within the state.

Montana, which ranks as one of the most rural states in the union, is 50<sup>th</sup> in the nation in the number of medical residents per capita. In Montana we currently have one residency, the Montana Family Medicine Residency, that trains 6 Family Physicians yearly. The retention rate for this program's graduates in Montana is 65% during its 10 years of existence, which is significantly above the national average retention rate.

While GME programs do not require the vast infrastructure, scale, and up-front costs of a medical school, they are nonetheless expensive and complicated. The

costs per resident of a typical GME program are as high, or higher, than those for medical school students. The principal mitigation is that GME programs do not need to be as large as the minimum for a viable medical school – which requires a student body of about 200 to be sustainable. Accreditation of GME programs is also an arduous and complex process. A community's willingness and capacity to host a residency program is critical for successful accreditation.

**Current Situation:**

GME within Montana deserves further study to see if expansion is feasible and would meet the state's needs in a cost-effective way. The goal of increasing GME is to increase the number of physicians practicing in the desired specialties in Montana. A particular emphasis of any expansion in Montana is to identify GME programs for specialties needed in rural communities where recruiting and retention has been problematic.

Given the complex analysis and community involvement necessary to evaluate expanded GME program(s) a detailed plan cannot be reasonably developed before the 60<sup>th</sup> Legislature. Our recommendation is to begin now what will likely be a 24-36 month process to recommend expansion of GME in Montana -- a process that must include the involvement of specific communities that might be willing to host a particular program.

**Recommendation:**

Appoint a team to conduct a feasibility study for new or expanded residency programs in Montana. This review would include the following:

1. Determine the feasibility of starting new residency programs in specialties that will help address the physician work force needs of the state such as Internal Medicine, Surgery, Psychiatry, Pediatrics and Family Medicine.
2. Evaluate the capacity and community willingness to expand the existing Family Medicine program.
3. Consider programs that could operate in combination with the current residency: Family Medicine/Psychiatry, Family Medicine/ER or a geriatric fellowship.
4. Consider a residency track or branch site within the state attached to an established program based elsewhere in the WWAMI region.
5. Review of accreditation requirements for selected specialties and their host institution to determine the infrastructure required for developing an accredited residency.
6. Complete a survey of Montana communities regarding their interest and resources to host a GME program.
7. Explore linkages with and seek advice from GME directors of neighboring medical schools including but not limited to University of Washington School of Medicine, Oregon Health Sciences University, University of Utah

School of Medicine, University of Colorado School of Medicine, and University of Minnesota School of Medicine.

8. Examine funding requirements of proposed residency programs. This would include an examination of current GME funding within Montana compared to neighboring states, including local, state, and federal sources.

The recommended review could be accomplished over a 12 month period. This would allow for a subsequent 18 months to fully develop a specific proposal for consideration in the 61<sup>st</sup> Legislature and the associated MUS budget process.

**Benefits of Recommendation:**

Residency programs are an effective way to attract physicians in targeted specialties who will be likely to remain in the state to practice. GME programs specifically designed to help meet state shortages can be especially effective. Expansion of residency programs in Montana is an important part of the long-term solution of providing physicians to our rural areas. GME is expensive, however, and requires tremendous community support to be successful. Additional and substantial effort needs to be devoted to the various alternatives for expanding programs in the state in order to target those programs most likely to be effective and with the highest benefit for the lowest cost.